



DELAWARE'S

Climate Action Plan

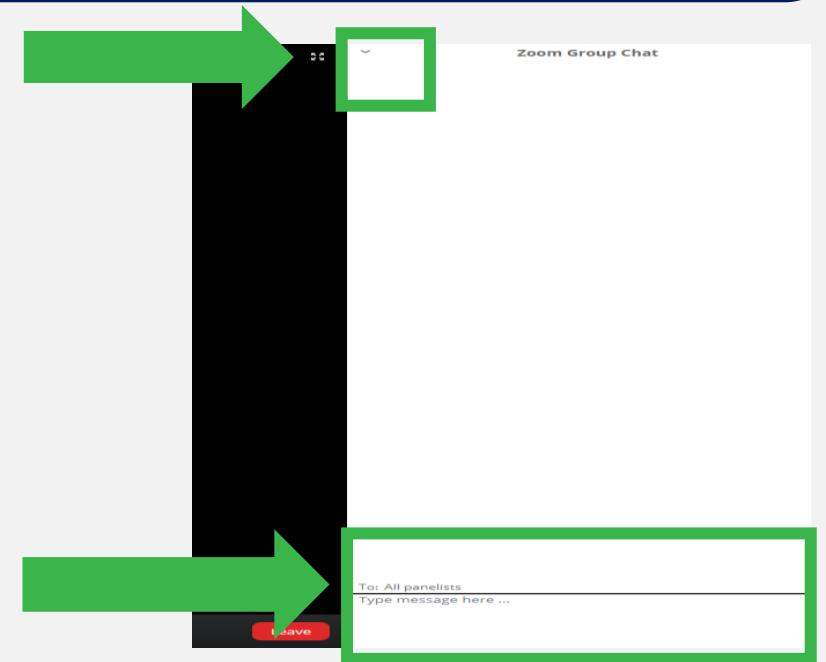
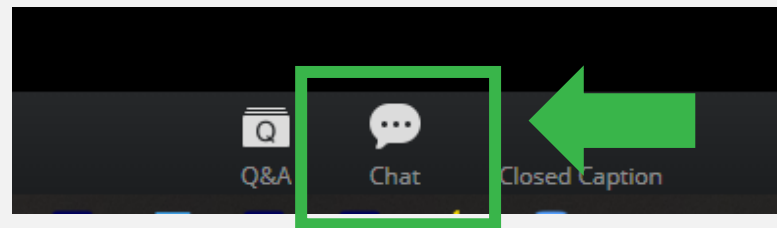
Welcome to Workshop 2:
Maximizing Resilience to Sea Level Rise
September 24, 2020
5:30 p.m. – 7 p.m.

Virtual Workshop Logistics:

Tech Support

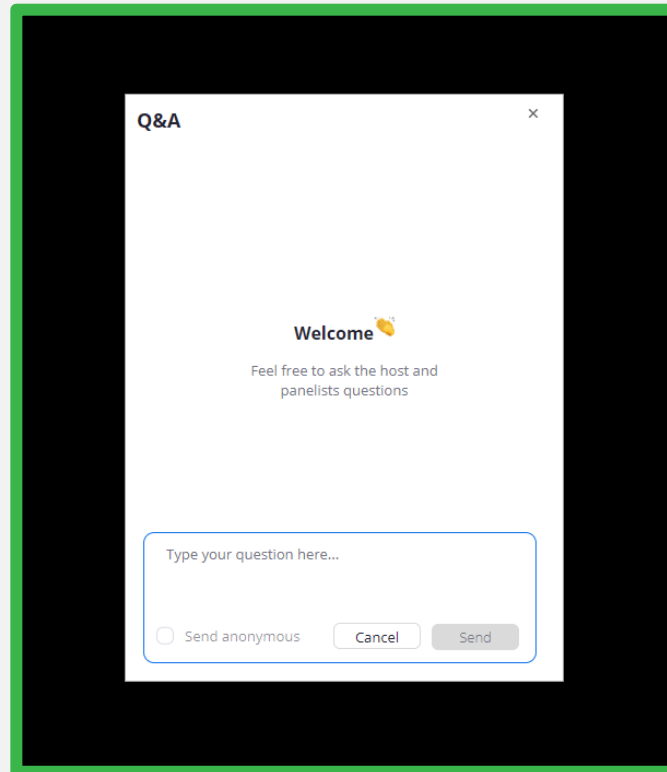
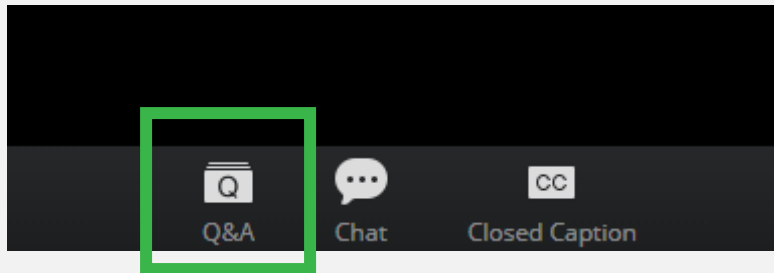
Get Tech Support

- Open your chat box.
- You can access the chat box by clicking the button at the bottom of your screen. A chat box will appear on the right side of your screen.
- Send a message to all panelists and someone will assist you. Please note that the other participants will NOT be able to see your question making it a private message.



Ask a Question or Submit a Comment

- Click the Q/A icon at the bottom of your screen to ask presenters questions or submit a comment.
- Presenters may not get to all questions, but they will try their best.
- If the Q&A function does not work, email questions or comments to declimateplan@delaware.gov anytime during the event.



Virtual Workshop Logistics:

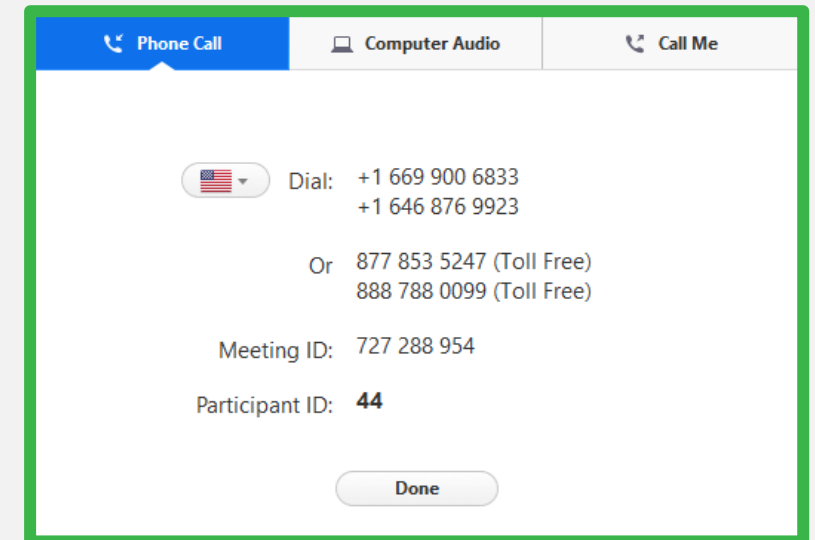
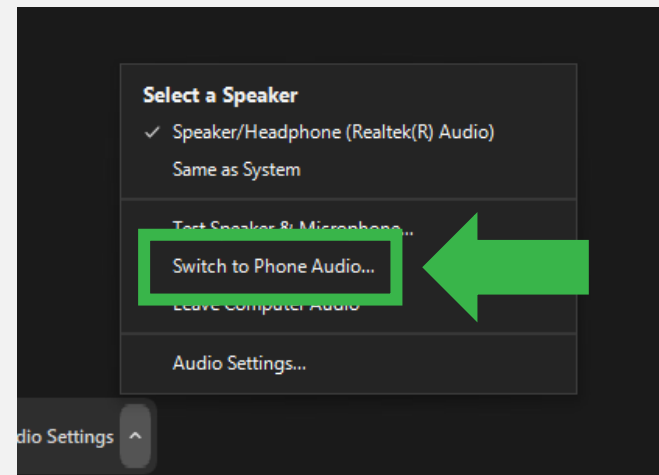
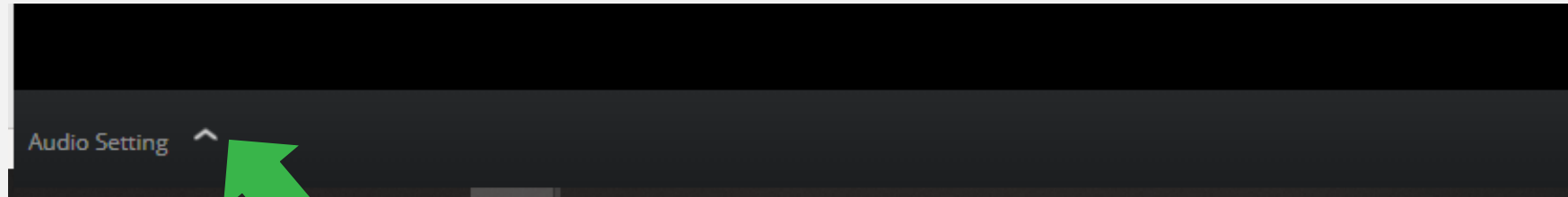
Questions and Comments

Virtual Workshop Logistics:

Audio

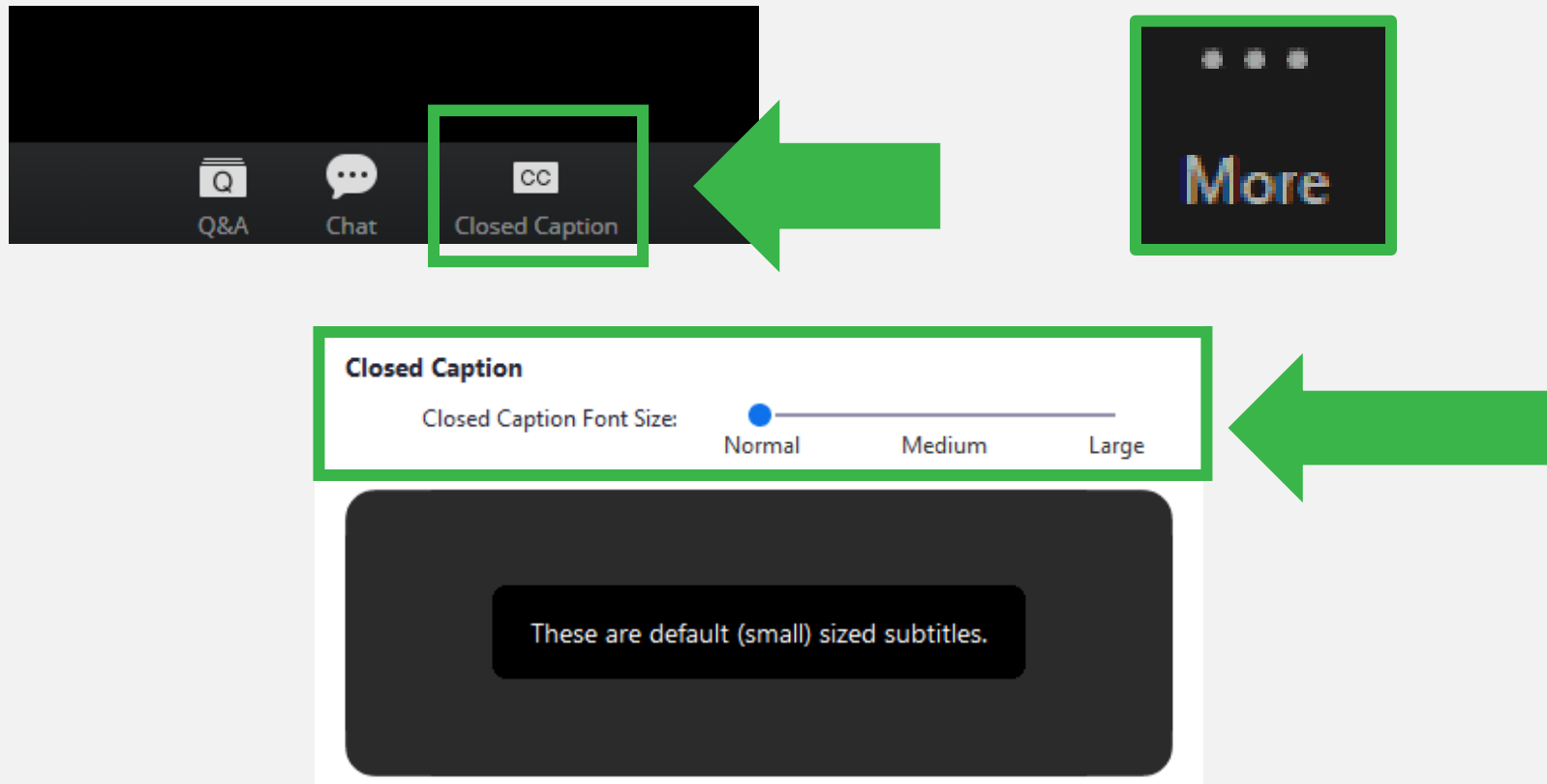
Make Sure Your Sound Works

- If you're using speaker audio and it doesn't work, try re-starting Zoom or click the "up" arrow and "Switch to Phone Audio".



Closed Captioning

- To turn on captions, click the closed captioning icon at the bottom of your screen and select “Show Subtitle”.
- To view captions that were typed previously, select “Show Full Transcript”, a new pop-up will appear with the transcript.
- To change caption size, click the “Closed Caption” icon again and select “Subtitle Settings”. Use the slider to change caption size.



Virtual Workshop Logistics:

Closed Captions

Agenda

5:30 p.m. – 5:40 p.m.

5:40 p.m. – 6 p.m.

6 p.m. – 6:45 p.m.

6:45 – 7 p.m.

7 p.m.

Workshop Introduction

Climate Change Impacts

Actions to Maximize Resilience

Questions and Wrap-up

Workshop Ends

Workshop Goals

Provide an overview of the Climate Action Plan and its development process.

Communicate how public input has shaped the planning process for the Climate Action Plan.

Provide overview of how actions identified for maximizing resilience were created.

Gather feedback on which actions to maximize resilience participants would like to see the state implement.

Workshop Facilitators and Presenters



Dr. Robert Scarborough

Division of Climate, Coastal and Energy
Delaware Coastal Management Program



Ms. Maggie Pletta

Division of Climate, Coastal and Energy
Delaware Coastal Management Program



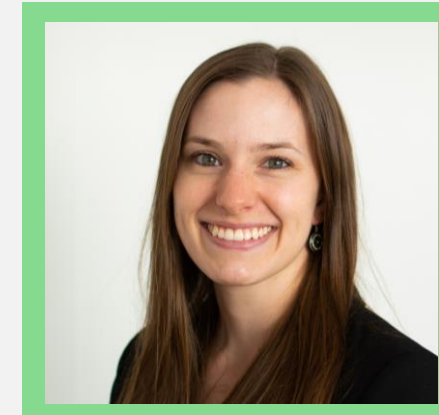
Mr. Ian Yue

Division of Climate, Coastal and Energy
Climate and Sustainability Section



Ms. Kristen Thornton

Division of Climate, Coastal and Energy
Delaware Coastal Management Program



Ms. Nicole Marks

Division of Climate, Coastal and Energy
Delaware Coastal Management Program

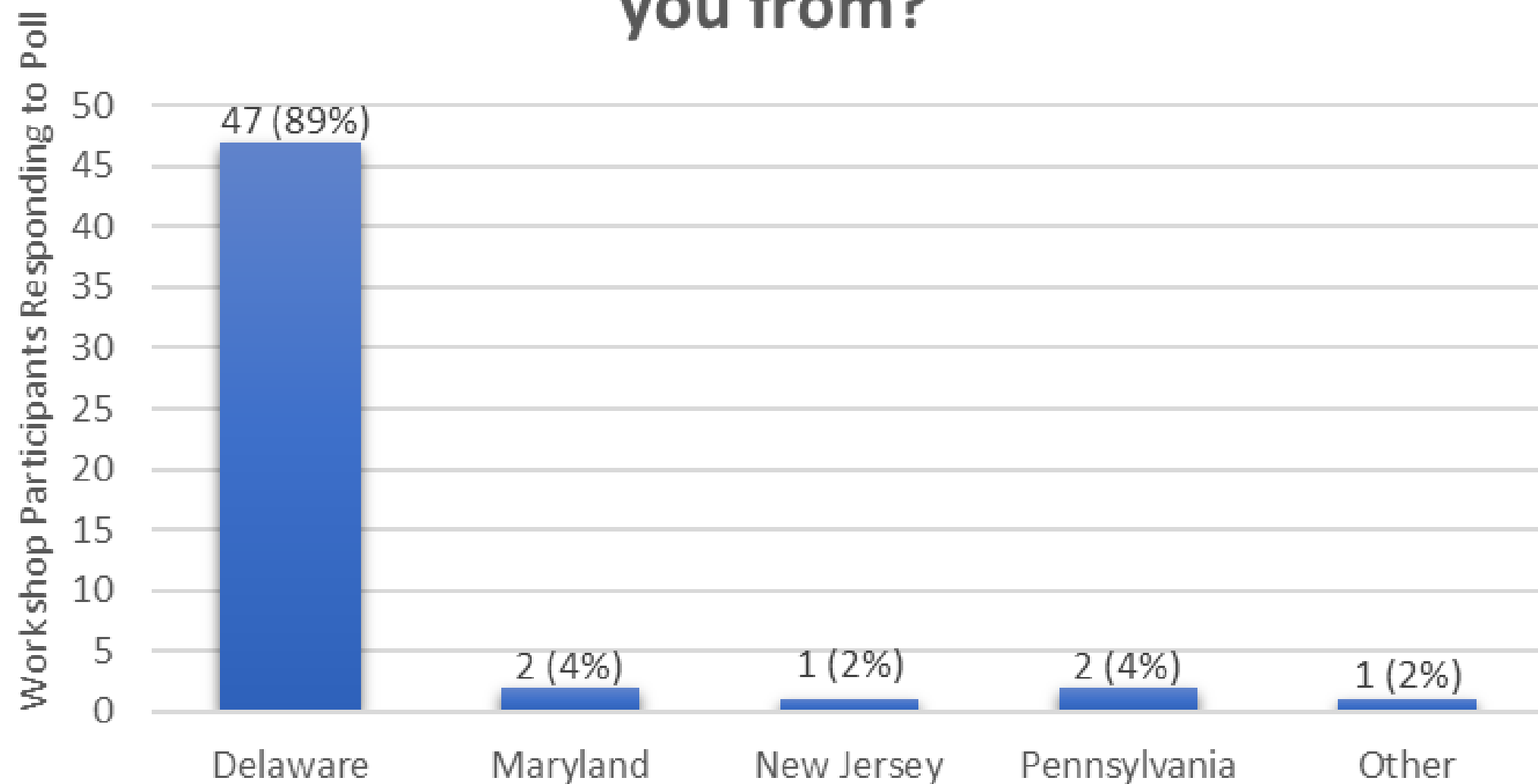
Getting to Know You

Where are you from?

- 1) Delaware
- 2) Maryland
- 3) New Jersey
- 4) Pennsylvania
- 5) Other



Zoom Poll: Getting to know you, where are you from?



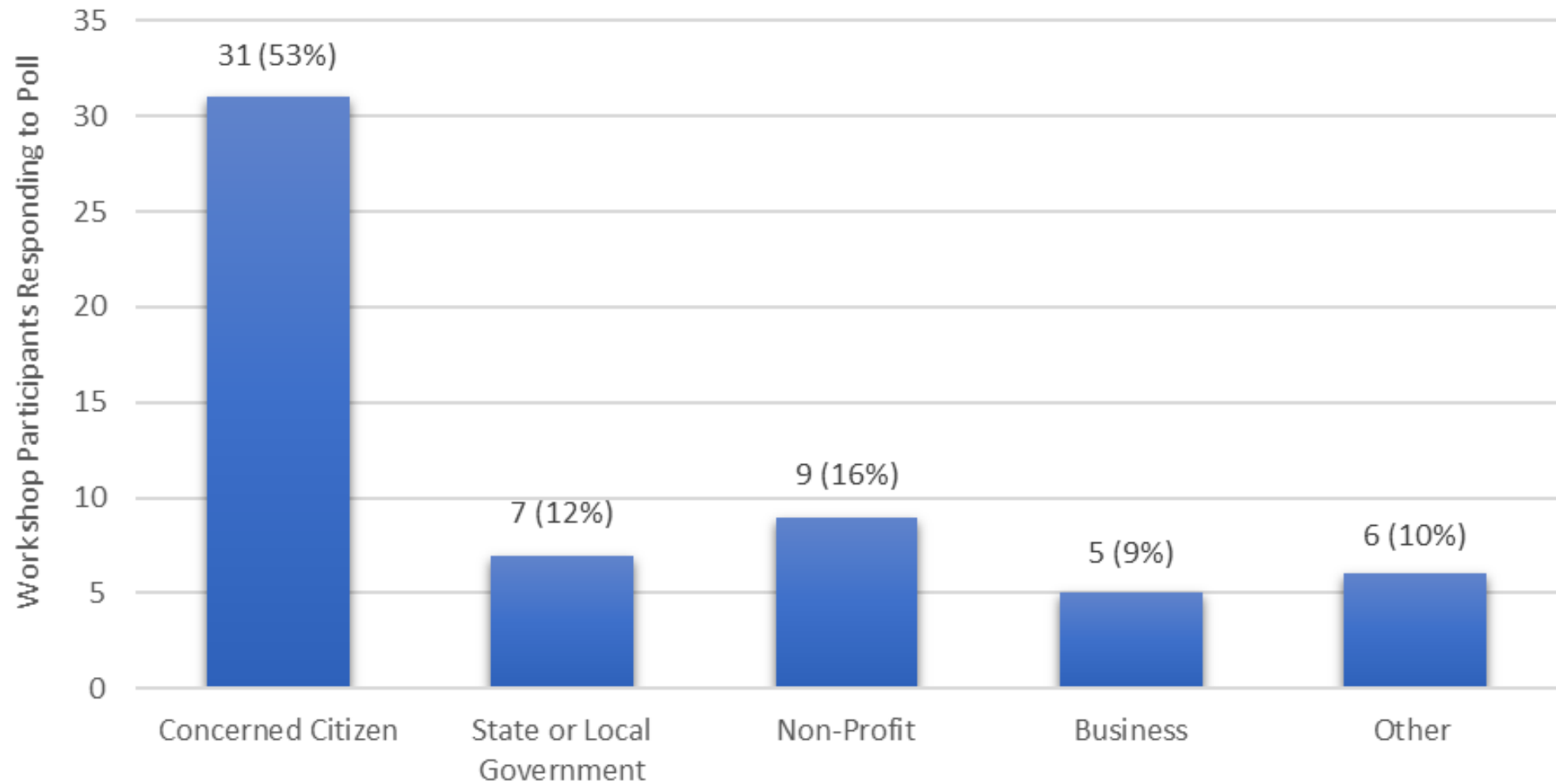
Getting to Know You

Organizational Affiliation?

- 1) Concerned Citizen
- 2) State or Local Government
- 3) Non-Profit
- 4) Business
- 5) Other



Zoom Poll: Getting to know you, who are you representing?



Climate Action Plan Overview

- The Plan will include actions to **minimize** and **maximize**:
 - **Minimize** greenhouse gas emissions, major driver of climate change
 - **Maximize** resilience to climate change impacts (e.g., increased temperatures, sea level rise, more extreme weather)
- **Provide information and actions** for state leaders to use in decision-making
- **Plan Release Date**: Winter 2021



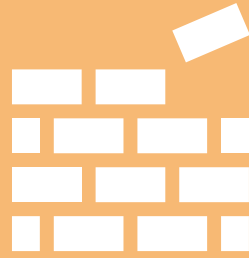
DELAWARE'S

Climate Action Plan

Implementing Delaware's Climate Action Plan will protect and strengthen:

- Our agricultural and tourism economies
- The natural places we enjoy for recreation
- Our infrastructure
- The health of our residents and visitors

Developing the Climate Action Plan



Built on Past Efforts

- Statewide Sea Level Rise Planning Initiative
- Executive Order 41
- Literature Reviews



Interviewed Experts

- State Agencies
- Neighboring State Climate Programs
- Universities and Federal Agencies



Engaged Stakeholders

- Public Workshops in March
- Online Survey
- Submission of Comments



Climate Change Impact: Sea Level Rise



What's at risk from sea level rise?



Agriculture

- Groundwater for irrigation
- Land suitable for agriculture



Human Health

- Emotional health
- Physical health



Infrastructure

- Roads, bridges, and rail lines
- Water control structures



Natural Resources

- Beaches and dunes
- Coastal wetlands



Water Resources

- Freshwater riverine habitats
- Drinking water intakes



Agriculture



- Contributes \$8 billion annually to our economy
- Groundwater for irrigation
- Land suitable for agriculture



Human Health

- Emotional health
 - Strain of nuisance flooding
 - Loss of connections during relocation
- Physical health
 - Respiratory health
 - Contaminants
 - Unsafe driving conditions





Infrastructure



- Roads, bridges, and rail lines
 - Around 5% of all roads at risk
 - Flooding, erosion, reduced bridge clearance
 - Around 4% of rail lines
 - Periodic flooding, long term inundation, erosion
- Water control structures
 - Dams, dikes, and levees
 - Up to 78% at risk



Natural Resources

- Beaches and dunes
 - Erosion
 - Unable to migrate landward
- Coastal wetlands
 - Loss of ecosystem services
 - Unable to keep pace
 - Unable to migrate landward





Water Resources



- Freshwater riverine habitats
 - Recreational and commercial fish species
- Drinking water intakes
 - Surface water sources
 - Reduction in quality and reliability

Sea Level Rise Impacts



Agriculture

- Groundwater for irrigation
- Land suitable for agriculture



Human Health

- Emotional health
- Physical health



Infrastructure

- Roads, bridges, and rail lines
- Water control structures



Natural Resources

- Beaches and dunes
- Coastal wetlands



Water Resources

- Freshwater riverine habitats
- Drinking water intakes

Recommendations

Management Plans

Outreach

Regulation and/or Policy

Facilities and Infrastructure
Design and Management

Research and Monitoring

Administrative Processes

Support for Communities
and Stakeholders



Management Plans

Update planning documents for natural resources, emergency response, state facilities, and Agency equipment.

Agency strategic plans.

Asset management plans for long-term maintenance, repair, and decommission decisions.

Natural resources and agricultural management and restoration plans.

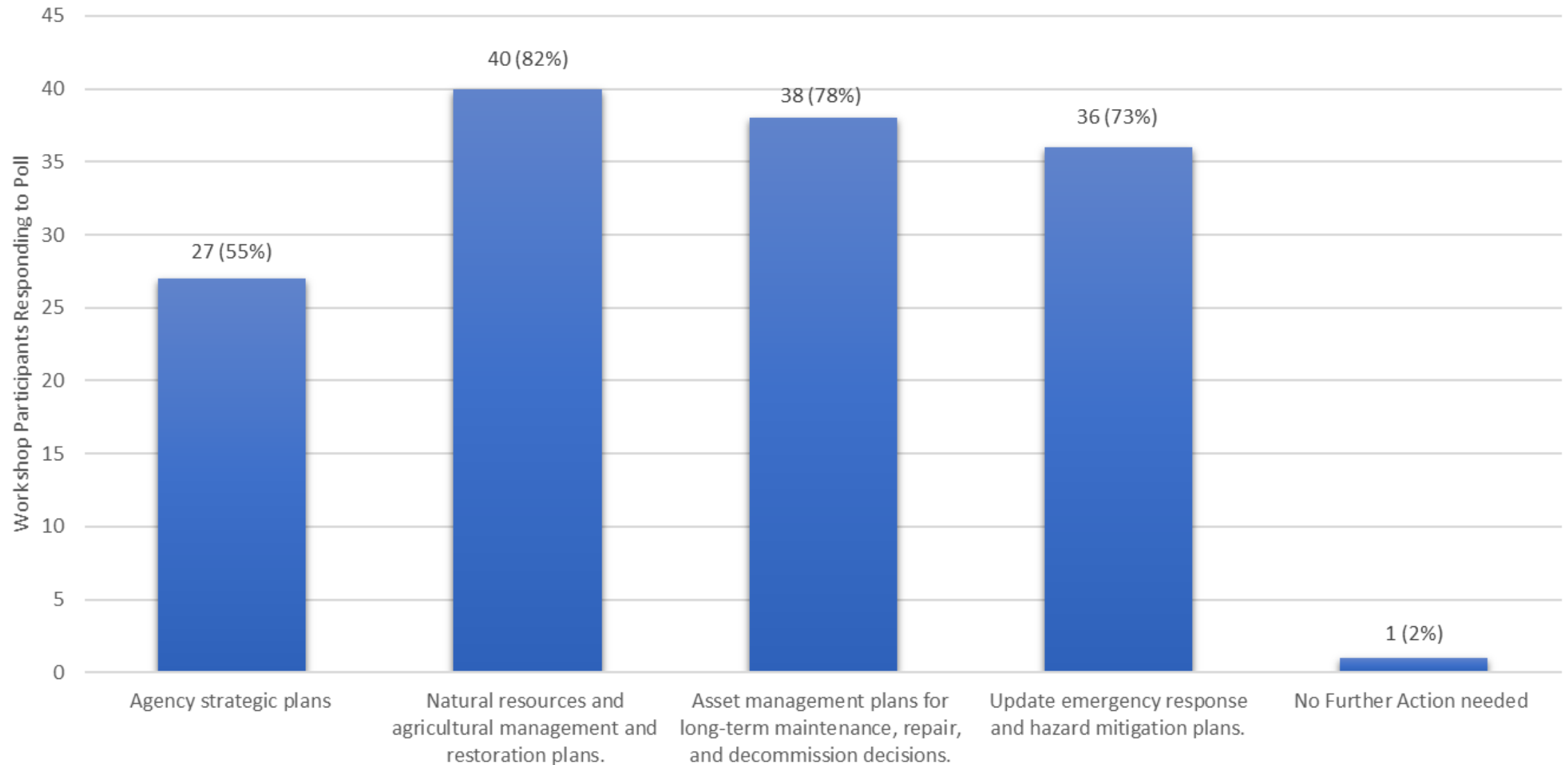
Update emergency response and hazard mitigation plans.

Zoom Poll



From the list of actions
choose all actions you
think are most important
for the state to implement.

Zoom Poll: Recommendation 1





Regulations and/or Policy

Update and/or change current regulations and policies to address protection and conservation of vulnerable and impacted resources.

Update Agency policies and guides.

Develop a comprehensive regulatory plan to protect and restore wetlands.

Evaluate opportunities to update the air quality permitting and regulatory process.

Review and update shoreline regulations to reduce risk to coastal properties.

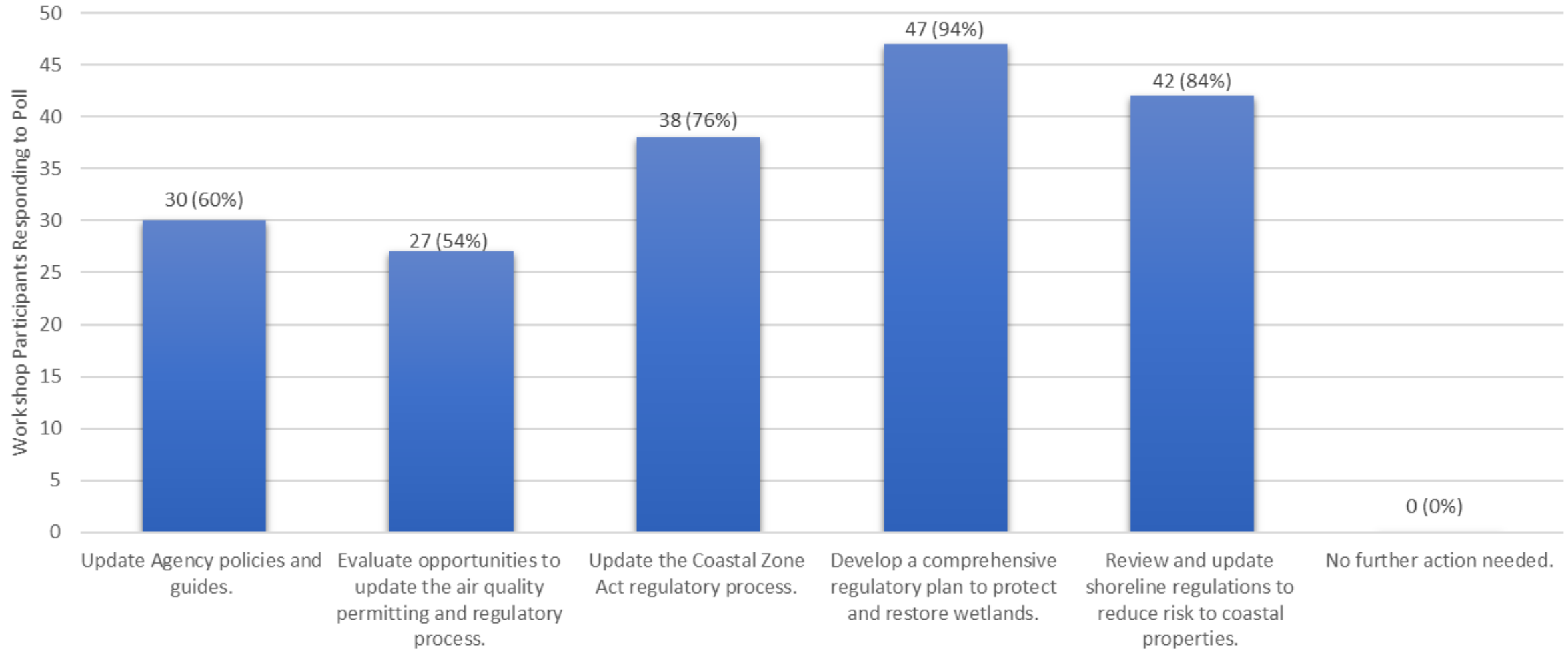
Update the Coastal Zone Act regulatory process.

Zoom Poll



From the list of actions
choose all actions you
think are most important
for the state to implement.

Zoom Poll: Recommendation 2





Research and Monitoring

Support monitoring of conditions and research that studies the impacts of climate change and methods of adapting.

Increase the number of adaptation pilot projects.

Review research and monitoring methodologies.

Continue and expand research on impacts to infrastructure and facilities.

Continue exploring impacts to human health and the costs of health care.

Continue, and expand, research, monitoring, and modeling of natural resources.

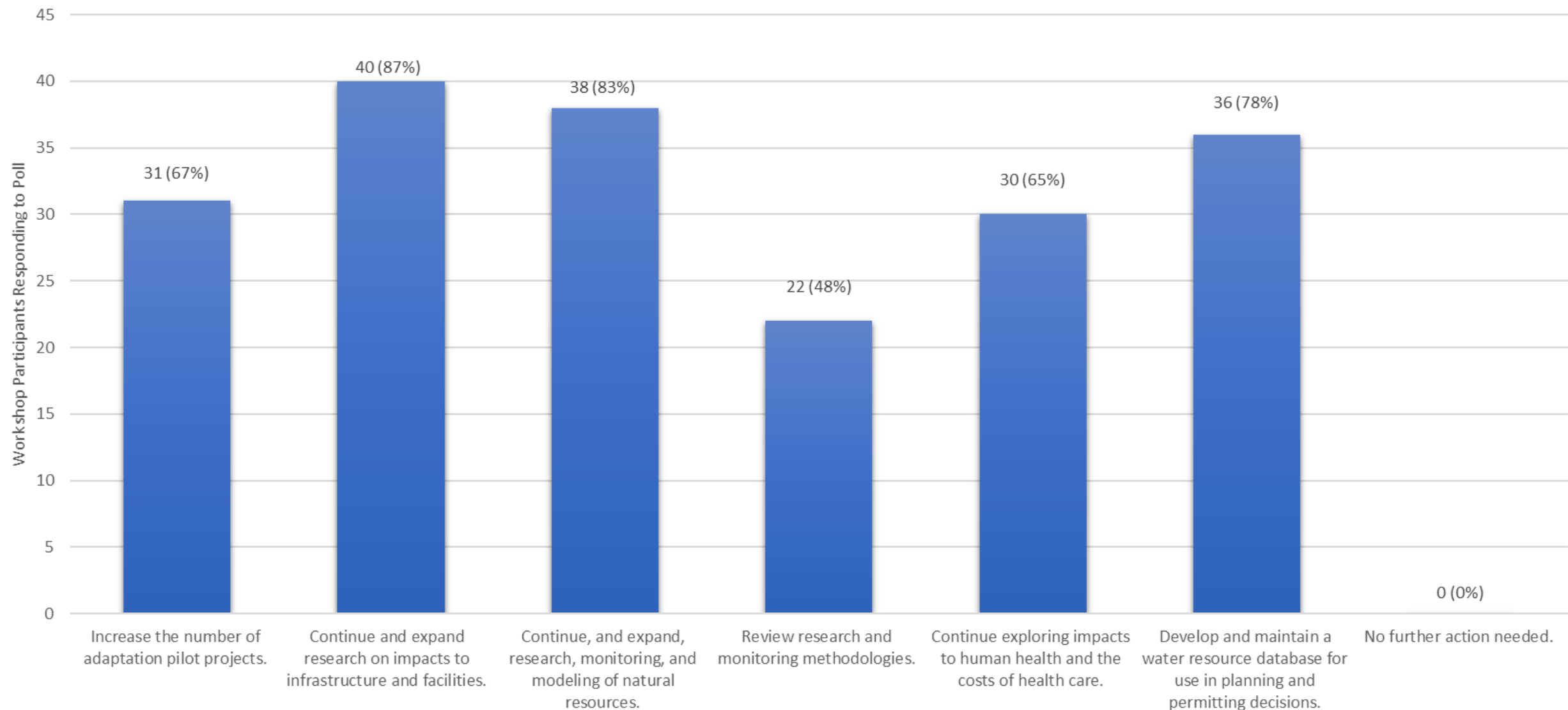
Develop and maintain a water resource database for use in planning and permitting decisions.



Zoom Poll

From the list of actions
choose all actions you
think are most important
for the state to implement.

Zoom Poll: Recommendation 3





Support of Communities and Stakeholders

Help in the form of trainings, resources, and technical assistance.

Increase grant opportunities for communities for adaptation projects.

Provide outreach and tools to businesses.

Support programs and initiatives that help frontline communities adapt.

Assist local governments with updating ordinances/planning documents.

Provide outreach, trainings, and tools to the public and government agencies.

Assist local governments and water suppliers to identify vulnerabilities and adaptation actions.

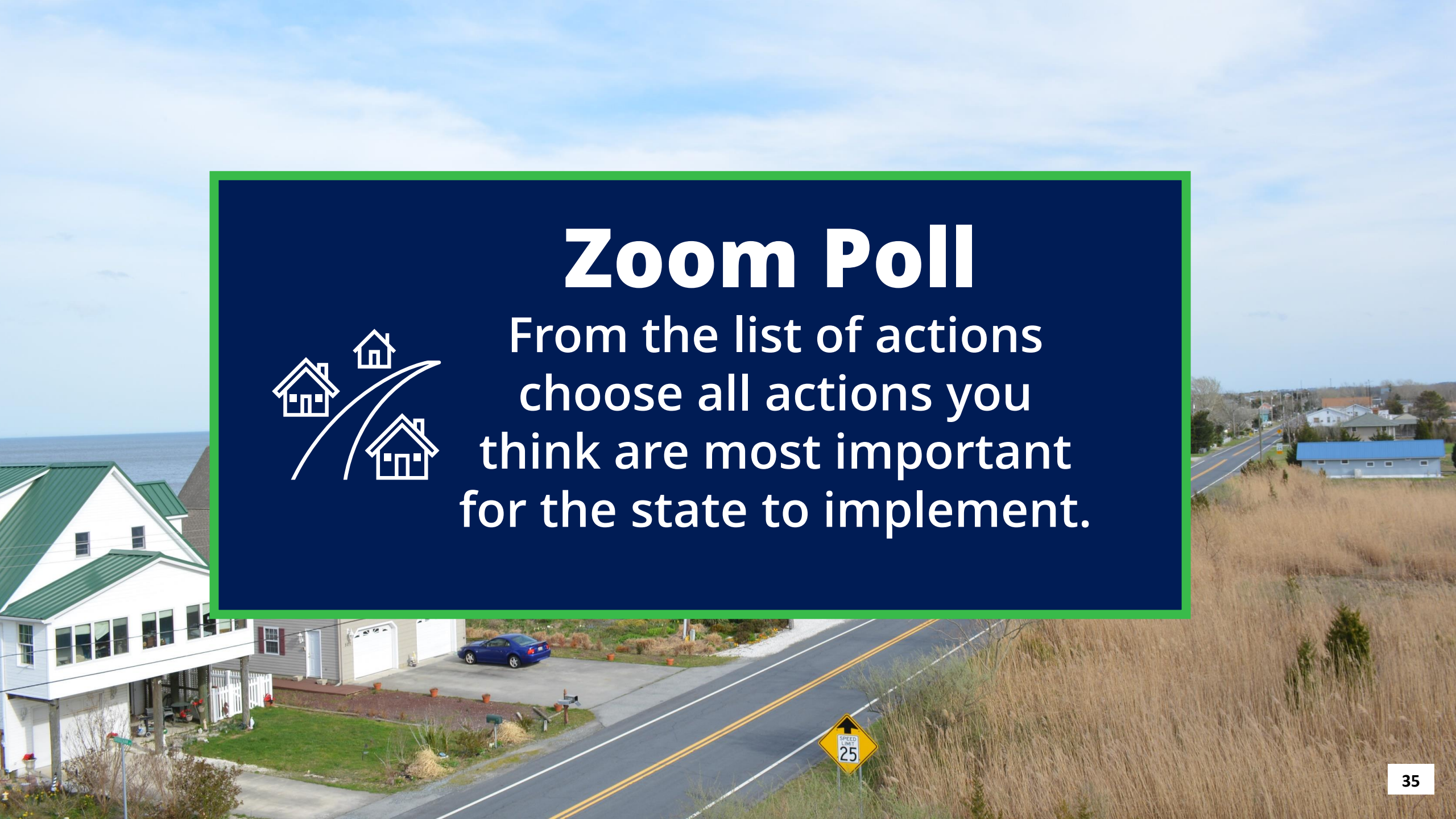
Support agricultural community adaptation.

Support insurance industry adaptation.

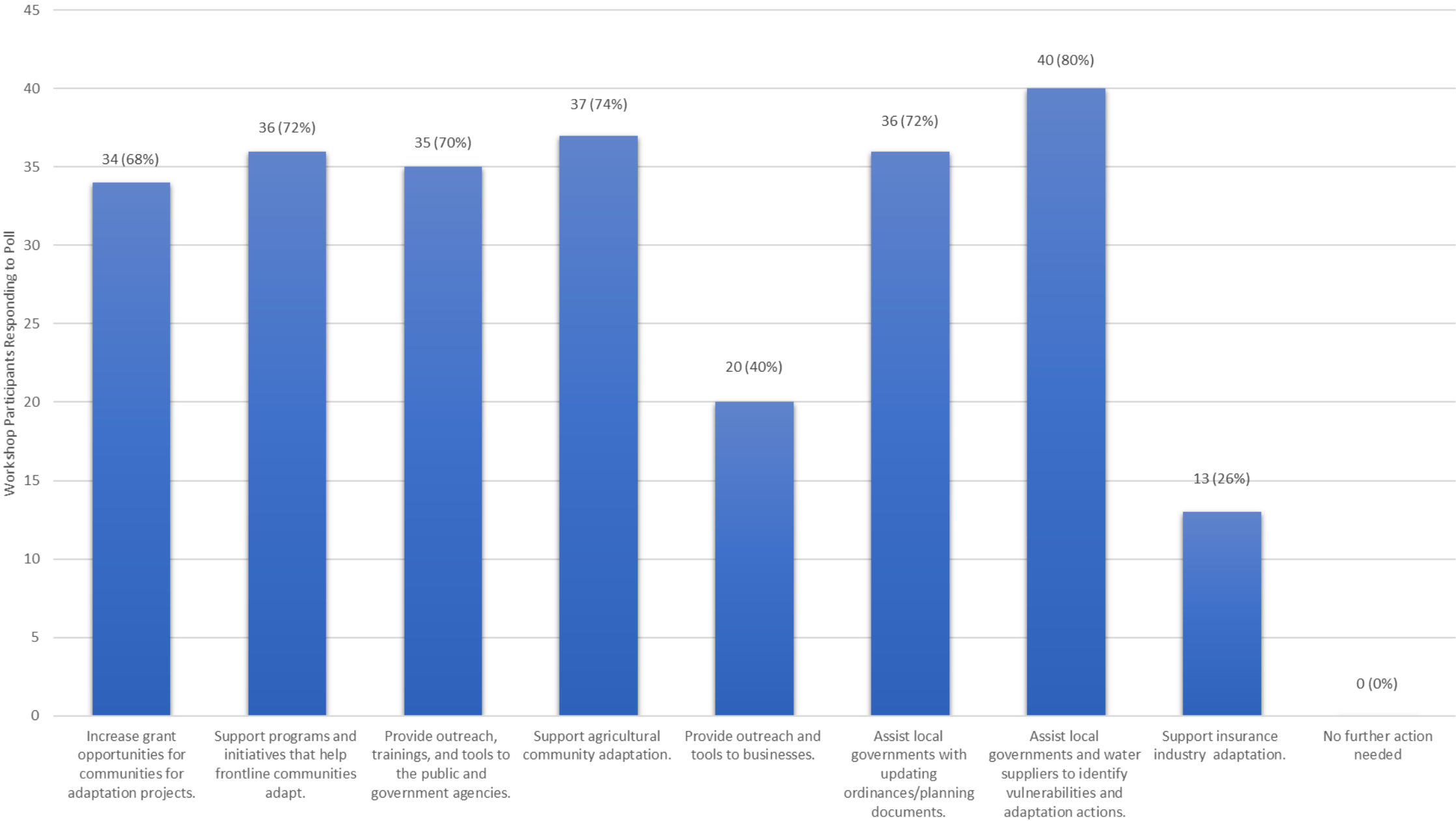
Zoom Poll



From the list of actions
choose all actions you
think are most important
for the state to implement.



Zoom Poll: Recommendation 4





Outreach

Messaging to stakeholders and the public on climate change impacts and adaptation.

Develop communication tools and resources, in both English and other languages.

Create targeted communication resources on climate change impacts.

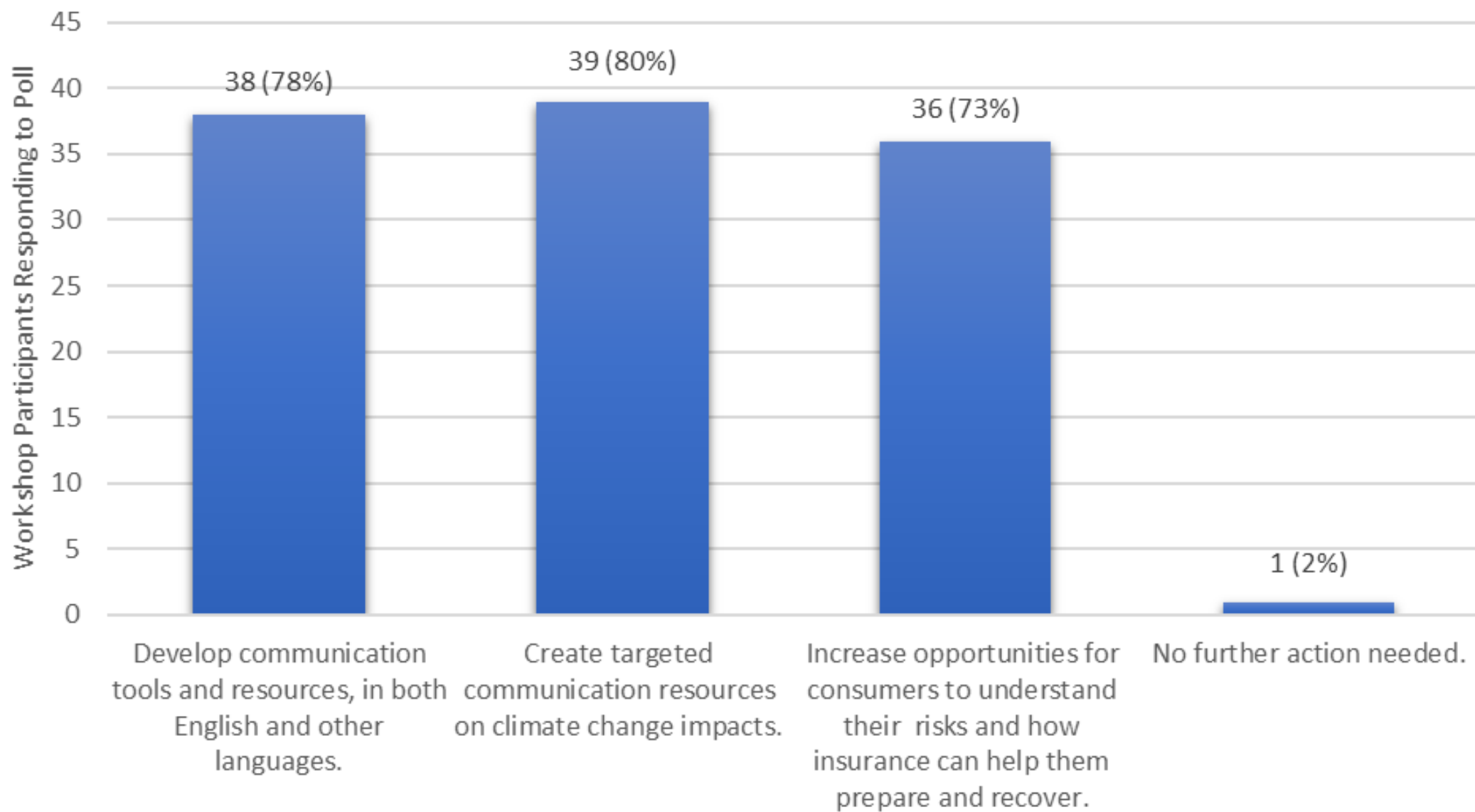
Increase opportunities for consumers to understand their risks and how insurance can help them prepare and recover.

Zoom Poll



From the list of actions
choose all actions you
think are most important
for the state to implement.

Zoom Poll: Recommendation 5





Facility and Infrastructure Design and Management

Plans and guides that that accounts for future climate conditions and sea level rise.

Prepare state facilities and equipment.

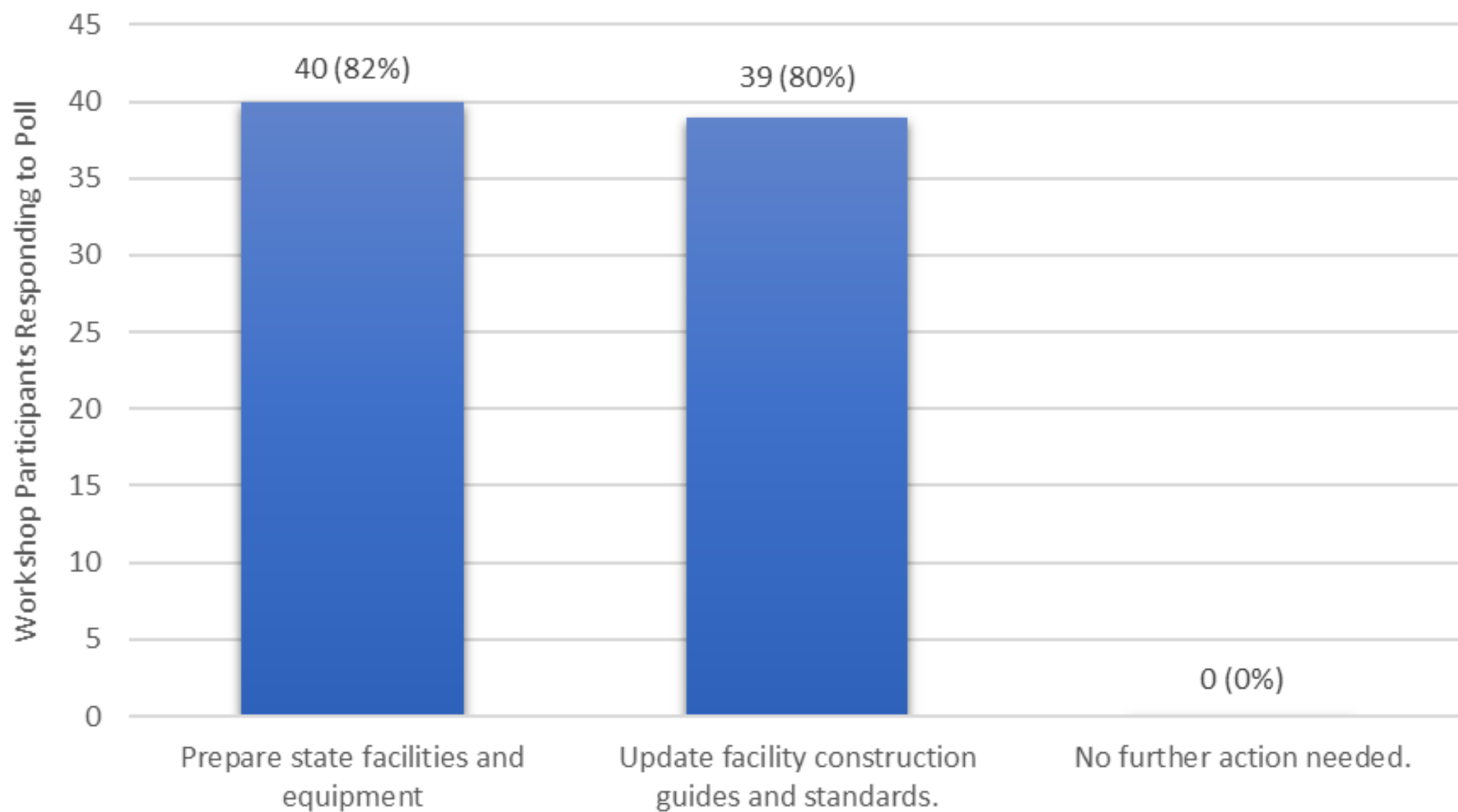
Update facility construction guides and standards.



Zoom Poll

From the list of actions
choose all actions you
think are most important
for the state to implement.

Zoom Poll: Recommendation 6





Administrative Processes

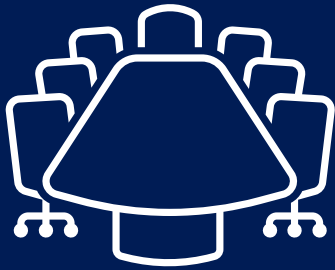
Review and edit processes related to operational guidelines and documents on how Agencies do business.

The background of the slide is a photograph of a large, multi-story red brick building with white window frames and a classical architectural style. In the foreground, there is a brick-paved walkway leading up to the building, flanked by green lawns and trees. A sign for 'LEGISLATIVE HALL' is visible in the lower right foreground.

Increase state Agency capacity to adapt through funding, staffing, and training.

Act as climate change adaptation leaders.

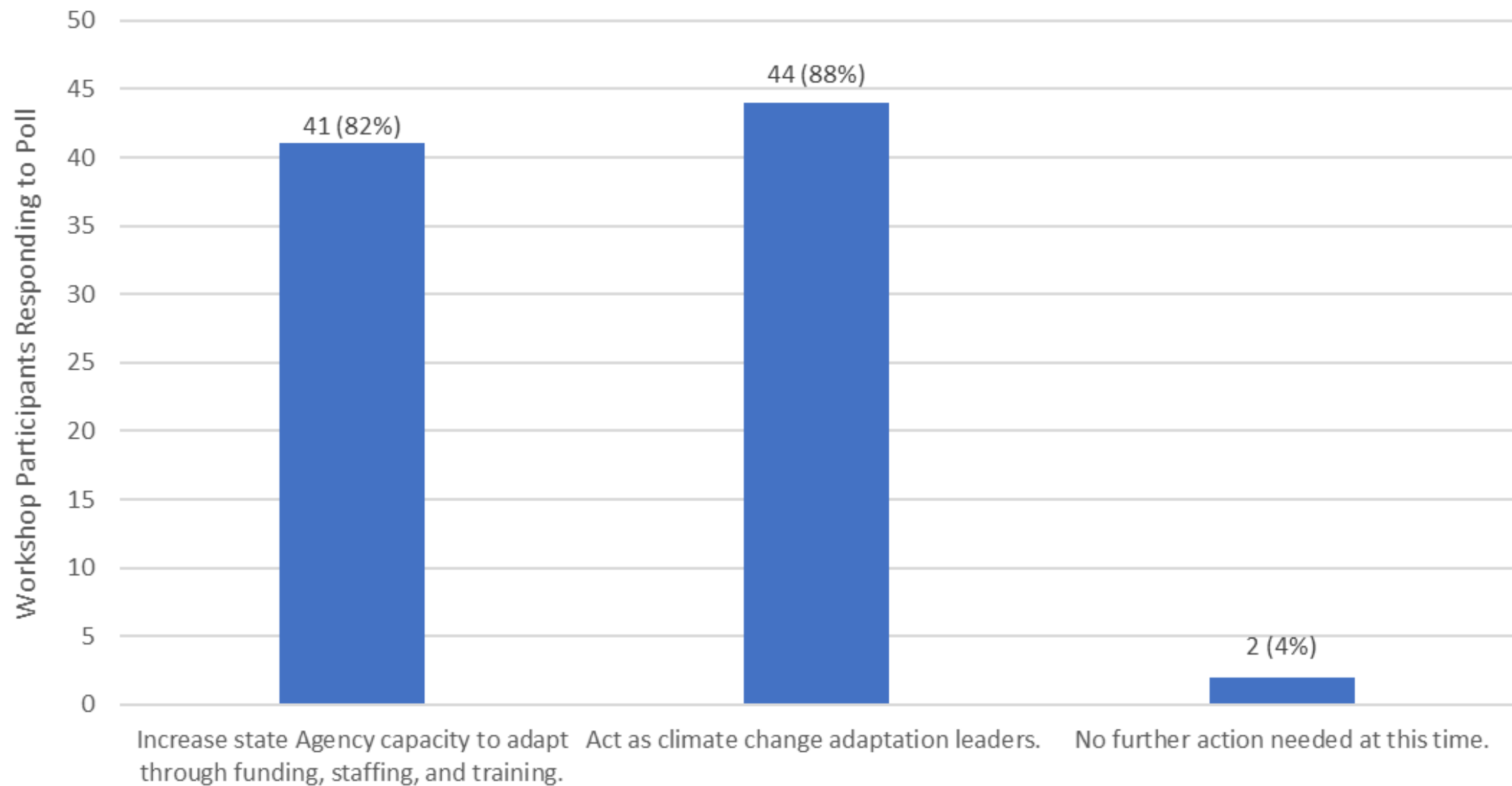
LEGISLATIVE HALL



Zoom Poll

From the list of actions
choose all actions you
think are most important
for the state to implement.

Zoom Poll: Recommendation 7



DELAWARE'S

Climate Action Plan

**What did
we miss?**

DELAWARE'S

Climate Action Plan

Questions

- We will answer as many questions as possible that were submitted via the Q&A box.
- All questions from the Q&A box answered live or not will be collected, answered and uploaded on declimateplan.org.
- The question document will be uploaded by Friday, October 16th.

Make Your Voice Heard



Register for an Upcoming Workshops

- Maximizing Resilience to Increased Temperatures
September 29, 5:30 p.m. to 7 p.m.
- Maximizing Resilience to Heavy Precipitation & Flooding
October 1, 5:30 p.m. to 7 p.m.



Provide Additional Feedback

- Feedback can be submitted via an online feedback form at declimateplan.org until Friday, October 16th.
- Comments can be submitted via an online MetroQuest Survey found at declimateplan.org until Friday, October 16th.



Help Improve Our Workshops

- Complete a brief questionnaire emailed to you within 24 hours to help us improve how we collect public input and host public workshops.



THANK YOU

DELAWARE'S
Climate Action Plan

www.declimateplan.org | declimateplan@delaware.gov | [@EnergyClimateDE](https://twitter.com/EnergyClimateDE)